REMARKS

Claims 1-5, 15 and 16 were under examination as of the issuance of the Office Action of September 29, 2004.

Claims 1, 15 and 16 have been amended, claims 4 and 5 (in addition to previously withdrawn claims 6-14) have been canceled, and new claims 17-21 have been added. Support for these amendments may be found in the specification and claims as originally filed. Specifically, support for new claim 17 can be found, for example, at least on page 5 in the 3rd full paragraph starting with "Asp polypeptides for use...". Support for new claims 18 to 20 can be found, for example, at least on page 7, in the 1st full paragraph which provides a listing of features for preferred homologs of the invention. Support for new claim 21 can be found, for example, at least on page 9 in the 4th paragraph starting with "Any Asp sequence for use...". Accordingly, no new matter has been introduced by these new amendments.

The foregoing amendments and cancellations should in no way be construed as an acquiescence to any of the Examiner's rejections and have been made solely to expedite examination of the present application. Applicants reserve the right to pursue the claims as originally filed in this or a separate application(s). After entry of these amendments, claims 1-5 and 15-21 will be pending in this application.

Specification

The specification has been objected to because it makes reference to URLs on the Internet. Specifically, the Office Action objects to the disclosure "because it contains an embedded hyperlink and/or other form of browser-executable code."

Applicants respectfully submit that the inclusion of web-addresses in the specification is directed to nonessential material. The disclosed hyperlinks are merely illustrative of well-known methods for comparing nucleotide and amino acid sequences which are readily accessible to one of ordinary skill in the art. The methods used by Applicants are also disclosed by reference to published documents (*e.g.*, Devereux *et al.*, 1984, Nucleic Acids Research 12:387 and Atschul *et al.*, 1990, J. Mol. Biol., 403-410). Further, the specific programs and software are disclosed and the particular parameters are also recited in the Detailed Description and in the Examples. Accordingly, the specification has now been amended to delete reference to these URL addresses, and withdrawal of this objection is requested.

Claim Objections

Claims 15 and 16 have been objected to under 37 C.F.R. § 1.75(c) as being in improper multiple dependent form. Claims 15 and 16 have been amended in accordance with MPEP § 608.01(n). Accordingly, Applicants respectfully request reconsideration and withdrawal of the objection.

Rejection under 35 U.S.C. § 112, second paragraph

Claims 1-3 have been rejected "as vague and indefinite for reciting the term Asp in association with forming and/or maintaining MTOC's as a sole means of identifying the claimed molecule" (Office Action, page 3). In order to expedite examination and in accordance with the Examiner's suggestion, Applicants have amended claim 1 to specify that the Asp polypeptide has the amino acid sequence of SEQ ID No. 1. Accordingly, Applicants respectfully request reconsideration and withdrawal of this rejection.

Rejection under 35 U.S.C. § 112, first paragraph, Written Description

Claims 1-5 have been rejected for failing to comply with the written description requirement because the specification, "only reasonably conveys one species of Asp polypeptides (SEQ ID No. 1) and, therefore, [is] not commensurate with the full scope of any/all homologs, fragments or derivatives thereof of SEQ ID No. 1" (Office Action, page 4).

Applicants respectfully disagree. Initially, Applicants note that claim 1 is not directed to derivatives. With regard to homologs, Applicants have amended claim 1 to specify that the Asp polypeptide has the sequence shown in SEQ ID No. 1 solely in order to expedite examination and in no way conceding to the validity of the Examiner's assertion. However, Applicants reserve the right to pursue claims directed to homologs in this or a separate application.

Lastly, Applicants respectfully submit that the claims and the specification provide sufficient written description for the fragments of Asp polypeptide. In particular, the claims and the specification characterize fragments of Asp as being capable of forming and/or maintaining MTOC's (see claim 1 and the last paragraph starting on page 5 and ending on page 6). Moreover, in the third full paragraph of page 6, the specification describes particular regions of the Asp polypeptide (SEQ ID No. 1), including, for example, $p34^{cdc2}$ consensus phosphorylation

sites, MAP kinase consensus phosphorylation sites, MPM2 epitope phosphorylation sites, putative actin binding sites and IQ motifs. In addition, the specification provides assays to determine whether a particular fragment possesses this functional property of forming and/or maintaining MTOC's. For example, on page 20, the specification indicates that the fragments should be capable of recognition by, for example, by binding to, the candidate substances. On pages 22-26, the specification provides Asp binding assays, MTOC nucleation activity assays and whole cell assays to identify the functional properties of the Asp polypeptide fragments and the effect of the candidate substances on such fragments.

Accordingly, Applicants assert that SEQ ID NO. 1 and fragments thereof are sufficiently described in the specification to demonstrate that the Applicants were in possession of the invention as claimed. Applicants respectfully request reconsideration and withdrawal of the rejection of claims 1-5 under 35 U.S.C. § 112, first paragraph.

Rejection under 35 U.S.C. § 112, first paragraph, Enablement

Claims 1-5 were also rejected on the ground that the specification "does not reasonably provide enablement for identifying a substance capable of disrupting microtubule organizing centre (MTOC) integrity by contacting any and all homologs or fragments thereof [of an] Asp polypeptide" (Office Action, page 5).

Applicants traverse this rejection. With regard to homologs of the Asp polypeptide, solely in order to expedite examination and in no way conceding to the validity of the Examiner's assertion, Applicants respectfully submit that the claims as presently amended do not encompass homologs. With regard to the use of Asp polypeptide fragments in the methods of the claimed invention, Applicants respectfully submit that one skilled in the art would be able to identify the functional properties of Asp polypeptide fragments through either standard assays known in the art or through those provided in the specification. As indicated earlier, the specification provides Asp binding assays, MTOC nucleation activity assays and whole cell assays to allow for the production and identification of Asp polypeptide fragments that possess the MTOC integrity functional property which can be affected by the candidate substances of the invention. In addition, the specification describes particular regions of an Asp polypeptide, including, for example, $p34^{cdc2}$ consensus phosphorylation sites, MAP kinase consensus phosphorylation sites,

MPM2 epitope phosphorylation sites, putative actin binding sites and IQ motifs that may confer the necessary functional properties of the polypeptide to the fragments.

Accordingly, Applicants assert that the specification sufficiently enables one skilled in the art to make, use and identify Asp polypeptide fragments possessing the required functional property of the pending claims, and respectfully request reconsideration and withdrawal of this rejection of claims 1-5 under 35 U.S.C. § 112, first paragraph.

CONCLUSION

In view of the foregoing remarks, reconsideration of the rejections and allowance of all pending claims is respectfully requested. If there are any remaining issues or if the Examiner believes that a telephone conversation with Applicants' Attorney would be helpful in expediting prosecution of this application, the Examiner is invited to call the undersigned at (617) 227-7400.

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Respectfully submitted,

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